Project WET
Connections to
KY Core Content 4.1

H_2O Olympics p.30

Elementary

Mathematics
MA-EP-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs with two or three sectors, line plots, two-circle Venn diagrams).
DOK 3

MA-04-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs, line plots, Venn diagrams).
DOK 3

MA-05-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, tally tables, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs).
DOK 3

MA-EP-4.1.2
Students will collect data.

MA-04-4.1.2
Students will collect data.

MA-05-4.1.2
Students will collect data (e.g., tallies, surveys) and explain how the skills apply in real-world and mathematical problems.

MA-EP-4.1.3
Students will organize and display data.

MA-04-4.1.3
Students will construct data displays (pictographs, bar graphs, line plots, Venn diagrams, tables).
DOK 2

MA-05-4.1.3
Students will construct data displays (pictographs, bar graphs, line plots, line graphs, Venn diagrams, tables).
DOK 2

MA-05-4.3.1
Students will describe and give examples of the process of using data to answer questions (e.g., pose a question, plan, collect data, organize and display data, interpret data to answer questions).

Science
SC-EP-2.3.1
Students will describe earth materials (solid rocks, soils, water and gases of the atmosphere) using their properties.

Earth materials include solid rocks and soils, water and the gases of the atmosphere. Minerals that make up rocks have properties of color, luster and hardness. Soils have properties of color, texture, the capacity to retain water and the ability to support plant growth. Water on Earth and in the atmosphere can be a solid, liquid or gas.
DOK 2

SC-04-2.3.1
Students will:
- classify earth materials by the ways that they are used;
- explain how their properties make them useful for different purposes.

Earth materials provide many of the resources humans use. The varied materials have different physical properties that can be used to describe, separate, sort and classify them. Inferences about the unique properties of the earth materials yield ideas about their usefulness. For example, some are useful as building materials (e.g., stone, clay, marble), some as sources of fuel (e.g., petroleum, natural gas), or some for growing the plants we use as food. DOK 2

SC-05-2.3.2
Students will explain interactions of water with Earth materials and results of those interactions (e.g., dissolving minerals, moving minerals and gases).

Water dissolves minerals and gases and may carry them to the oceans. DOK 3

Middle School

Mathematics
MA-06-4.1.1

Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots).
DOK 3

MA-07-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots, scatter plots).
DOK 3

MA-08-4.1.1
Students will analyze and make inferences from data displays (drawings, tables/charts, pictographs, bar graphs, circle graphs, line plots, Venn diagrams, line graphs, stem-and-leaf plots, scatter plots, histograms, box-and-whiskers plots).
DOK 3

MA-06-4.1.4
Students will determine and construct appropriate data displays (bar graphs, line plots, Venn diagrams, tables, line graphs), and will explain why the type of display is appropriate for the data.
DOK 2

MA-07-4.1.4
Students will determine and construct appropriate data displays (bar graphs, line plots, Venn diagrams, tables, line graphs, stem-and-leaf plots), and will explain why the type of display is appropriate for the data. DOK 2

High School

Mathematics
MA-HS-4.1.1
Students will analyze and make inferences from a set of data with no more than two variables, and will analyze problems for the use and misuse of data representations. DOK 3

MA-HS-4.1.2
Students will construct data displays for data with no more than two variables.
DOK 2

MA-HS-4.3.2
Students will design simple experiments or investigations to collect data to answer questions of interest.

Science

SC-HS-1.1.5
Students will explain the role of intermolecular or intramolecular interactions on the physical properties (solubility, density, polarity, conductivity, boiling/melting points) of compounds. The physical properties of compounds reflect the nature of the interactions among molecules. These interactions are determined by the structure of the molecule including the constituent atoms. DOK 2

SC-HS-1.1.7
Students will:

- construct diagrams to illustrate ionic or covalent bonding;
- predict compound formation and bond type as either ionic or covalent (polar, nonpolar) and represent the products formed with simple chemical formulas.

Bonds between atoms are created when outer electrons are paired by being transferred (ionic) or shared (covalent). A compound is formed when two or more kinds of atoms bind together chemically.